AMENDMENTS TO THE SPECIFICATION:

Please replace paragraph [0068] on page 24 with the following amended paragraph:

[0068] Fig. 14 shows a state where an electric field direction partially inclined in a specific direction in the liquid crystal light modulation element provided with the ~~rib-lke~~ rib-like projected structure.

Please replace paragraph [0110] on page 32 with the following amended paragraph:

[0110] As a liquid crystal display element having advantages similar to the above, following ~~mitilayer~~ multilayer element is provided.

Please replace paragraph [0163] starting on page 46 and ending on page 47 with the following amended paragraph:

[0163] The liquid crystal filling the lower, middle and upper liquid crystal display elements were cholesteric selective-reflection liquid crystal, which could selectively reflect the light in red, green and blue, respectively. The liquid crystal for red display was made of cholesteric liquid crystal, which had a peak wavelength of the selective reflection equal to 680 nm, and was made of a mixture of nematic liquid crystal BL46 and 32.6 wt% of chiral agent CB15 both manufactured by [[Merk]] Merck & Co. The liquid crystal for green display was made of cholesteric liquid crystal, which had a peak wavelength of the selective reflection equal to 550 nm, and was made of a mixture of nematic liquid crystal BL46 and 40 wt% of chiral agent CB15 both manufactured by [[Merk]] Merck & Co. The liquid crystal for blue display was made of cholesteric liquid crystal, which had a peak wavelength of the selective reflection equal to 480 nm, and was made of a mixture of nematic liquid crystal BL46 and 47.6 wt% of chiral agent CB15 both manufactured by [[Merk]] Merck & Co.

Please replace paragraph [0174] on page 51 with the following amended paragraph:

[0174] The liquid crystal filling the lower, middle and upper liquid crystal display elements could selectively reflect the light in red, green and blue, respectively. The liquid crystal for red display was made of cholesteric liquid crystal, which had a peak wavelength of the selective reflection equal to 680 nm, and was made of a mixture of nematic liquid crystal BL46 and 32.6 wt% of chiral agent CB15 both manufactured by [[Merk]] Merck & Co. The liquid crystal for green display was made of cholesteric liquid crystal, which had a peak wavelength of the selective reflection equal to 550 nm, and was made of a mixture of nematic liquid crystal BL46 and 40 wt% of chiral agent CB15 both manufactured by [[Merk]] Merck & Co. The liquid crystal for blue display was made of cholesteric liquid crystal, which had a peak wavelength of the selective reflection equal to 480 nm, and is made of a mixture of nematic liquid crystal BL46 and 47.6 wt% of chiral agent CB15 both manufactured by [[Merk]] Merck & Co.

Please replace paragraph [0178] on page 53 with the following amended paragraph:

[0178] The above liquid crystal was made of cholesteric liquid crystal, which had a peak wavelength of the selective reflection equal to 550 nm, and was made of a mixture of nematic liquid crystal BL46 and 40 wt% of chiral agent CB15 both manufactured by [[Merk]] Merck & Co. A light absorber layer was arranged on the side of each sample remote from the observation side.

Please replace paragraph [0225] starting on page 72 and ending on page 73 with the following amended paragraph:

[0225] In any one of the above cases, the above multilayer liquid crystal optical modulation element may be a multilayer liquid crystal optical modulation element formed of a plurality of liquid crystal elements including at least one or all formed of the fourth or fifth types of liquid crystal elements. The neighboring liquid

crystal optical modulation elements may commonly use the same substrate between the ~~neiboring~~ neighboring liquid crystal layers.

Please replace paragraph [0232] on page 75 with the following amended paragraph:

[0232] As examples of the method of producing the liquid crystal ~~light(optica)l~~ light (optical) modulation element described above, first and second producing methods described below may be employed. The contents already described in connection with the fourth and fifth liquid crystal optical modulation elements can be true also with respect to the first and second producing methods as well as the liquid crystal optical modulation elements produced by the first and second methods.

Please replace paragraph [0252] on page 85 with the following amended paragraph:

[0252] The first and second methods of producing the liquid crystal optical modulation element may include a step of partially arranging a region providing a different ~~orienrtation~~ orientation regulating force on the surface in contact with the liquid crystal of at least one of the substrates for orientating regularly the helical axes of the liquid crystal molecules in the focal conic state, and a step of arranging the liquid crystal layer between the paired substrates including at least one substrate provided with the region having the different orientation regulating force.

Please replace paragraph [0256] on page 86 with the following amended paragraph:

[0256] As the manner of entirely or partially effecting the rubbing as well as the manner of entirely or partially effecting the light irradiation described above, similar manner to those executed in the rubbing processing step in the first and second methods of producing the liquid crystal optical modulation element can be employed. As the manner of using the partially different material, ~~simialar~~ similar manner to that employed in the second method for arranging the orientation control

layers providing the different material parameters on the sides of the paired substrates opposed to the liquid crystal layer can be employed.

Please replace paragraph [0286] starting on page 96 and ending on page 97 with the following amended paragraph:

[0286] (c) The change or difference in angle is caused by the rubbing, which is effected on at least one of the orientation control layers 81 and 82 arranged on the respective substrates 1 and 2. In this case, it is desirable that the orientation control layer thus rubbed has the rubbing density of 10 or [[loess]] less. The angle may be increased or decreased by partially effecting the rubbing on the orientation control layer through a mask having a predetermined pattern of openings. In any one of the above cases, the polydomain having helical axes of a smaller inclination than the original inclination can be obtained without causing monodomain structure, depending on the material of the orientation film and/or rubbing conditions.

Please replace paragraph [0322] on page 110 with the following amended paragraph:

[0322] Through the above steps, the regions 16 having a desired form can be formed in intended ~~positios~~ positions by a relatively simple manner.

Please replace paragraph [0362] starting on page 127 and ending on page 129 with the following amended paragraph:

[0362] In this experiment, the liquid crystal display element was employed, in which the inclination (angle of the helical axis of the liquid crystal in the selective reflection state with respect to the substrate normal) of the helical axis of the liquid crystal was different between the upper and lower substrates (i.e., the upper and lower substrates were provided with orientation control films of different materials, respectively).

<Orientation Control Film on the Observation Side>

Orientation control film material:

polyimide

JALS-1024-R (manufacture by JSR Corp.)

non-rubbing

Inclination of helical axis (average):

about 18°

Deposition conditions:

flexo print of orientation control film material

preliminary baking with 80°C for 2 minutes

baking with 140°C for 60 minutes

Thickness of orientation control film 500 Å

<Orientation Control Film on the Non-Observation Side Opposite to the Observation Side>

Orientation control film material:

polyimide

AL1454 (manufacture by JSR Corp.)

non-rubbing

Inclination of helical axis (average):

about 7°

Deposition conditions:

flexo print of orientation control film material

preliminary baking with 80°C for 2 minutes

baking with 140°C for 60 minutes

Thickness of orientation control film 500 Å

<Liquid Crystal>

Liquid crystal material:

nematic liquid crystal E31-LV manufactured by [[Merk]] Merck & Co. and chiral agent S-811 (24.5 wt%) manufactured by [[Merk]] Merck & Co.

Selective reflection peak wavelength: λ = 550 nm

Please replace paragraph [0367] starting on page 130 and ending on page 131 with the following amended paragraph:

[0367] This experiment was performed with another example of the liquid crystal display element of a single layer, in which the inclination (angle of the helical axis of the liquid crystal in the selective reflection state with respect to the substrate normal) of the helical axis of the liquid crystal was different between the upper and lower substrates (i.e., the rubbing was effected on the orientation control film of only one of the substrates).

<Orientation Control Film on the Observation Side>

Orientation control film material:

polyimide

JALS-1024-R (manufacture by JSR Corp.)

non-rubbing

Inclination of helical axis (average):

about 18°

Deposition conditions:

flexo print of orientation control film material

preliminary baking with 80°C for 2 minutes

baking with 140°C for 60 minutes

Thickness of orientation control film 500 Å

<Orientation Control Film on the Non-Observation Side>

Orientation control film material:

polyimide

JALS-1024-R (manufacture by JSR Corp.)

Rubbing was effect on the entire area.

Inclination of helical axis (average):

about 4°

Deposition conditions:

flexo print of orientation control film material

preliminary baking with 80°C for 2 minutes

baking with 140°C for 60 minutes

Thickness of orientation control film 500 Å

Rubbing conditions

pressed brush height(pressed amount): 0.4 mm

roller radius: 75 mm

roller rotation speed: 0

substrate moving speed: 30 mm/sec

rubbing times: 5

rubbing density: 5

<Liquid Crystal>

Liquid crystal material:

nematic liquid crystal E31-LV manufactured by [[Merk]] Merck & Co. and chiral agent S-811 (24.5 wt%) manufactured by [[Merk]] Merck & Co.

Selective reflection peak wavelength: λ = 550 nm

Please replace paragraph [0382] starting on page 135 and ending on page 137 with the following amended paragraph:

[0382] This experiment was performed with further another example of the liquid crystal display element of a single layer, in which the inclination (angle of the helical axis of the liquid crystal in the selective reflection state with respect to the substrate normal) of the helical axis of the liquid crystal was different between the upper and lower substrates (i.e., the optical orientation processing is effected on the orientation control film of only one of the substrates).

<Orientation Control Film on the Observation Side>

Orientation control film material:

polyimide

TT-054 (Hitachi Chemical Co., Ltd.)

non-rubbing

Inclination of helical axis (average):

about 16°

Deposition conditions:

flexo print of orientation control film material

preliminary baking with 100°C for 1 minutes

baking with 230°C for 30 minutes

Thickness of orientation control film 500 Å

<Orientation Control Film on the Non-Observation Side>

Orientation control film material:

polyimide

TT-054 (Hitachi Chemical Co., Ltd.)

Optical orientation was effected.

Inclination of helical axis (average):

about 6°

Deposition conditions:

flexo print of orientation control film material

preliminary baking with 100°C for 1 minutes

baking with 230°C for 30 minutes

Thickness of orientation control film 500 Å

UV irradiation conditions

$5J/cm^2$

incident angle 15°

substrate temperature 23°C

The whole substrate surface was irradiated through a polarizing plate.

<Liquid Crystal>

Liquid crystal material:

nematic liquid crystal E31-LV manufactured by [[Merk]] Merck & Co. and chiral agent S-811 (24.5 wt%) manufactured by [[Merk]] Merck & Co.

Selective reflection peak wavelength: $\lambda = 550$ nm

Please replace paragraph [0387] starting on page 138 and ending on page 140 with the following amended paragraph:

[0387] This experiment was performed with further another example of the liquid crystal display element of a single layer, in which the inclination (angle of the helical axis of the liquid crystal in the selective reflection state with respect to the substrate normal) of the helical axis of the liquid crystal was different between the upper and lower substrates (i.e., the optical orientation processing was effected on the orientation control films of the opposite substrates with different amounts of exposure light, respectively).

<Orientation Control Film on the Observation Side>

Orientation control film material:

polyimide

TT-054 (Hitachi Chemical Co., Ltd.)

Optical orientation was effected.

Inclination of helical axis (average):

about 12°

Deposition conditions:

flexo print of orientation control film material

preliminary baking with 100°C for 1 ~~minutes~~minute

baking with 230°C for 30 minutes

Thickness of orientation control film 500 Å

Irradiation conditions

2J/cm^2

incident angle 15°

substrate temperature 23°C

The whole substrate surface was irradiated through a polarizing plate.

<Orientation Control Film on the Non-Observation Side>

Orientation control film material:

polyimide

TT-054 (Hitachi Chemical Co., Ltd.)

Optical orientation was effected.

Inclination of helical axis (average):

about 6°

Deposition conditions:

flexo print of orientation control film material

preliminary baking with 100°C for 1 ~~minutes~~minute

baking with 230°C for 30 minutes

Thickness of orientation control film 500 Å

Irradiation conditions

5J/cm^2

incident angle 15°

substrate temperature 23°C

The whole substrate surface is irradiated through polarizing plate.

<Liquid Crystal>

Liquid crystal material:

nematic liquid crystal E31-LV manufactured by [[Merk]] Merck & Co. and chiral agent S-811 (24.5 wt%) manufactured by [[Merk]] Merck & Co.

Selective reflection peak wavelength: λ = 550 nm

Please replace paragraph [0392] starting on page 141 and ending on page 143 with the following amended paragraph:

[0392] This experiment was performed with further another example of the liquid crystal display element of a single layer, in which the inclination (angle of the helical axis of the liquid crystal in the selective reflection state with respect to the substrate normal) of the helical axis of the liquid crystal was different between the upper and lower substrates (i.e., the optical orientation processing was effected on the orientation control films of the opposite substrates with different temperatures of substrates during the exposure, respectively).

<Orientation Control Film on the Observation Side>

Orientation control film material:

polyimide

TT-054 (Hitachi Chemical Co., Ltd.)

Optical orientation was effected.

Inclination of helical axis (average):

about 12°

Deposition conditions:

flexo print of orientation control film material

preliminary baking with 100°C for 1 ~~minutes~~minute

baking with 230°C for 30 minutes

Thickness of orientation control film 500 Å

Irradiation conditions

2J/cm^2

incident angle 15°

substrate temperature 23°C

The whole substrate surface was irradiated through a polarizing plate.

<Orientation Control Film on the Non-Observation Side>

Orientation control film material:

polyimide

TT-054 (Hitachi Chemical Co., Ltd.)

Optical orientation was effect.

Inclination of helical axis (average):

about 7°

Deposition conditions:

flexo print of orientation control film material

preliminary baking with 100°C for 1 ~~minutes~~minute

baking with 230°C for 30 minutes

Thickness of orientation control film

500 Å

Irradiation conditions

$2J/cm^2$

incident angle 15°

substrate temperature 120°C

The whole substrate surface is irradiated polarizing plate.

<Liquid Crystal>

Liquid crystal material:

nematic liquid crystal E31-LV manufactured by [[Merk]] Merck & Co. and chiral agent S-811 (24.5 wt%) manufactured by [[Merk]] Merck & Co.

Selective reflection peak wavelength: $\lambda = 550$ nm

Please replace paragraph [0397] starting on page 144 and ending on page 146 with the following amended paragraph:

[0397] This experiment was performed with still another example of the liquid crystal display element of a single layer, in which the inclination (angle of the helical axis of the liquid crystal in the selective reflection state with respect to the substrate normal) of the helical axis of the liquid crystal was different between the upper and lower substrates (i.e., the partial rubbing was effected on the orientation control film of only one of the substrate).

<Orientation Control Film on the Observation Side>

Orientation control film material:

polyimide

JALS-1024-R (manufacture by JSR Corp.)

non-rubbing

Inclination of helical axis (average):

about 18°

Deposition conditions:

flexo print of orientation control film material

preliminary baking with 80°C for 2 minutes

baking with 140°C for 60 minutes

Thickness of orientation control film 500 Å

<Orientation Control Film on the Non-Observation Side>

Orientation control film material:

polyimide

JALS-1024-R (manufacture by JSR Corp.)

Partial rubbing was effect with the following resist pattern.

Inclination of helical axis (average):

about 7°

Deposition conditions:

flexo print of orientation control film material

preliminary baking with 80°C for 2 minutes

baking with 140°C for 60 minutes

Thickness of orientation control film

500 Å

Resist pattern

Photomask: non-opening/opening = 7 μm / 3 μm

(pitch 10 μm)

Spin coating of OFPR-800 (Tokyo Ohka Kogyo Co., Ltd.)

Prebake: 80°C for 15 minutes, clean oven

Exposure: 30 mJ/cm^2 with UV exposing device

Development: SD-1 (developer manufactured by Tokuyama Corp.)

Rinsing: flowing ultrapure water

Post-bake: 120°C for 15 minutes

Etching: iron-salt liquid D (manufactured by Hayashi Pure Chemical Ind., Ltd.)

0 minutes

Resist peeling: isopropyl alcohol (IPA: manufactured by Tokuyama Corp.), peeling time = 2 minutes

Rubbing conditions

pressed brush height (pressed amount): 0.4 mm

roller radius: 75 mm

roller rotation speed: 900 rpm

substrate moving speed: 30 mm/sec

rubbing times: 2

rubbing density: about 470

<Liquid Crystal>

Liquid crystal material:

nematic liquid crystal E31-LV manufactured by [[Merk]] Merck & Co. and chiral agent S-811 (24.5 wt%) manufactured by [[Merk]] Merck & Co.

Selective reflection peak wavelength: λ = 550 nm

Please replace paragraph [0420] on page 156 with the following amended paragraph:

[0420] As the liquid crystal composition, such chiral nematic liquid crystal was used that was formed of nematic liquid crystal E31-LV manufactured by [[Merk]] Merck & Co. and chiral agent S-811 (24.5 wt%) manufactured by [[Merk]] Merck & Co., and had the selective reflection peak wavelength λ adjusted to 550 nm. The liquid crystal composition had the helical pitch of about 343 nm. The liquid crystal composition was supplied into the cell by a vacuum-supply method. Finally, the liquid crystal inlet was closed by a seal agent to complete the liquid crystal light modulation element.

Please replace paragraph [0562] on page 192 with the following amended paragraph:

[0562] As the multilayer element of the above type, the full-color liquid crystal display element of the reflection type can be achieved, in which the liquid crystal compositions, ~~exhibing~~ exhibiting a cholesteric phase in the room temperature and having the positive dielectric anisotropy, are used, and the liquid crystal materials

having the selective reflection wavelengths, which are adjusted to for red, green and blue, are used in the elements, respectively.

Please replace paragraph [0577] on page 197 with the following amended paragraph:

[0577] Thereafter, the structures [[wree]] were subjected to post-exposure by the UV exposing device at 300 mJ/cm2. Post baking at 150° for five minutes was performed by a suction hot plate so that an inclined portion was formed on each of the above structures. Finally, a main curing processing was performed by a clean oven at 150°C for 120 minutes so that the projected structures having a trapezoidal section were formed. The projected structure had a height of about 1.5 μm, an upper surface width of about 4 μm and a lower portion width of about 8 μm, and each inclined portion thereof is about 2μm in width.

Please replace paragraph [0580] on page 198 with the following amended paragraph:

[0580] As the liquid crystal composition, such chiral nematic liquid crystal was used that was formed of nematic liquid crystal E31-LV manufactured by [[Merk]] Merck & Co. and chiral agent S-811 (24.5 wt%) manufactured by [[Merk]] Merck & Co., and had the selective reflection peak wavelength λ adjusted to 550 nm. The liquid crystal composition had the helical pitch of about 343 nm. The liquid crystal composition was supplied into the cell by a vacuum-supply method. Finally, the liquid crystal inlet was closed by a seal agent to complete the liquid crystal light modulation element.

Please replace paragraph [0584] on page 200 with the following amended paragraph:

[0584] The arrangement pitch state of the projected structures was changed between the uniform pitch state and random pitch state for determining the influence by it. The transmittance was not changed substantially. However, the

uniform pitch produced the diffracted light at a specific angle, which ~~tendeds~~ tended to lower the visibility.

Please replace paragraph [0621] beginning on page 195 and ending on page 196 with the following amended paragraph:

~~[0621]~~[0571a] The various forms have been described, the element is not restricted to them, and may be modified in various manners. Various manners may also be employed for orientation regulation or restriction.

Please replace paragraph [0631] on page 213 with the following amended paragraph:

[0631] The liquid crystal composition was formed of nematic liquid crystal E44 and chiral agent S811 (32 wt%) both manufactured by [[Merk]] Merck & Co., and contained spacers formed of Micropearl SP205 of 5 μm in particle diameter. A liquid crystal element for blue display was prepared in this manner[[,]]. In this element, the liquid crystal layer had the selective reflection wavelength of 490 nm, and the liquid crystal composition had the helical pitch of about 306 nm.

Please replace paragraph [0632] on page 213 and ending on page 214 with the following amended paragraph:

[0632] In similar manners, the liquid crystal elements for green display and red display were prepared. The liquid crystal composition for green display was formed of nematic liquid crystal E44 and 30 wt% of chiral agent S811, both manufactured by [[Merk]] Merck & Co. The liquid crystal composition for red display was formed of nematic liquid crystal E44 and 25 wt% of chiral agent S811, both manufactured by [[Merk]] Merck & Co. For providing the substrate gaps of 7 μm and 9 μm, spacers SP205 and SP209 (manufactured by Sekisui Chemical Co., Ltd.) of 7 μm and 9 μm in diameter were used. The liquid crystal element for green display had the selective reflection wavelength of 560 nm, and the liquid crystal

element for red display had the selective reflection wavelength of 680 nm. The helical pitches of the liquid crystal composition were about 350 nm and about 425 nm.

Please replace paragraph [0649] on page 218 with the following amended paragraph:

[0649] The left handed rotatory chiral nematic liquid crystal was formed of nematic liquid crystal E-31LV and 24.5 wt% of chiral agent S-811, both manufactured by [[Merk]] Merck & Co. The right handed rotatory chiral nematic liquid crystal was formed of nematic liquid crystal E-31LV and 24.5 wt% of chiral agent R-811, both manufactured by [[Merk]] Merck & Co.